Red Sox Win World Series—Championship Parade Today at Noon

MIT's **Oldest and Largest** Newspaper



The Weather

Today: Sunny, 60°F (16°C) Tonight: Clear, 47°F (8°C) Tomorrow: Sunny and brisk, 65°F (18°C) Details, Page 2

Volume 127, Number 50

Cambridge, Massachusetts 02139

Tuesday, October 30, 2007

City Councillors Seek **New 2-Year Terms in Cambridge Elections**

the election, including

By Marie Y. Thibault STAFF WRITER

Next Tuesday, Nov. 3, voters will decide who will sit on the Cambridge City Council for the next two years. There will be at least one new

face, since only eight incumbents are running for reelection.

candidates, see page 14. The main issues this year are affordable housing, education, and safety, as listed by many of the candidates as top priorities in their campaign.

Some candidates are pushing less-known topics. Kathy Podgers, a

first-time candidate, says she is living with a disability and that her top priority is to bring Cambridge into compliance with the Americans with Disabilities Act. Jonathan Janik said that synchronizing traffic signals in

Cambridge would For more information about allow drivers to get from one end interview responses from of the city to the other more quick-

ly, so he has made it a top priority. The only current City Council

member who is not running for reelection is Anthony D. Galluccio, who has just been elected to the Massachusetts State Senate.



Berklee College of Music students Stash Wyslough (left) and Andy Reiner (right) celebrate the Red Sox World Series victory by jamming in the streets of Boston. See more photos on pages

Two Dollar Tuesdays Provide Grad | 266 Freshmen Get Fifth-**Students With Social Dining Event**

By Arkajit Dey

Oct. 9 marked the beginning of a series of dining events for graduate students known as Two Dollar Tuesdays, sponsored by the Graduate Student Council and the Large Event Fund. 125 students out of the 150 who bought tickets attended the sold-out event, which was intended

to give graduate students an opportunity to socialize over dinner.

The budget-priced offering featured "adult beverages" and a choice between chicken parmesan or vegetarian cheese ravioli catered from the Pacific St. Cafe, according to an e-mail sent to the graduate commu-

The new Dean of Graduate Stu-

dents, Steven R. Lerman, gave a brief talk, and and GradRat, the graduate ring committee made a presentation. GradRat "had a sales booth, provided some sandwiches, and raffled off some flash memory drives," wrote co-organizer and GSC Activities Committee Chair Kevin A.

\$2 Tuesdays, Page 13

APO Holds Unholiest Human Competition

Proceeds Collected in Traditional Contest to Be Given to Winner's Choice of Charity

By Elijah Jordan Turner

The Unholiest huMan on Campus (UMOC) competition, the latest descendant of the annual Ugliest Man on Campus event, is being held this week. Members of the MIT community can vote for their favorite candidates by placing money in the

candidates' respective jars in Lobby 10. At the end of the event, which concludes on Friday, November 2, all proceeds will be given to the charity of the winner's choice.

Alpha Phi Omega has been holding UMOC events at colleges and universities nationwide since the

early 1950s. MIT's chapter of the co-ed fraternity closely followed the tradition until 1992, when a female entered the competition on the basis that "she made a very ugly man," according to Iolanthe K. Chronis '08,

UMOC, Page 15



Rachel M. Bainbridge '09 (left) and Kristin K. Brown '09 (right) collect donations for APO's annual charity UMOC contest (short for Unholiest huMan on Campus this year) in Lobby 10 on Monday. At the end of the first day Miriam "Mish" A. Madsen '09 led the competition with \$17.85.

MIT Symphony Orchestra Gives Fall Concert

Page 12

Short stays on buzzing platform turn cells in mice into bone instead of fat in new study.

Page 18

World & Nation 2 Opinion.....4 Campus Life...... 5

Week Warnings; Flags Increase From Last Year

By Ryan Ko STAFF REPORTER

Fifth-week flags have been sent to 233 freshmen who may be in danger of failing a class. This 21.8 percent warning rate is an increase from 17.5 percent in Fall 2006 and 18.3 percent in Fall 2005. About six percent, or 66 students, received more than one

The increase in flags is no reason to worry, said Julie B. Norman, senior associate dean and director of the Office of Undergraduate Advising and Academic Programming, who attributes this year's numbers to normal variance. "I am not aware of any outstanding issues with the freshman class," she said. Norman cites 20 percent as the average number of freshmen who are flagged

After the fifth week of the term, instructors are supposed to compile a list of freshmen in their classes who are either currently failing or are in danger of doing so. Norman said that the flags were evenly distributed among the typical classes freshmen take. Once a student is flagged, the student's advisor and Norman are both notified.

The flagged student is then sent an e-mail offering assistance, ranging from tutoring to mental health services. "The most important part is how flagged students respond," said

In the end, most flagged students pass the classes they are flagged for, as 84 percent did in Fall 2006. Norman said she was optimistic that this year's students will achieve the same level of success.

Obama Holds Rally In Boston; Gains Patrick's Endorsement

By Caroline Huang

STAFF REPORTER

The buzzwords were health care education, and Iraq, and the 9,500person crowd swarming the Boston Common

F'eature was all ears at last Tuesday evening's rally with Massachusetts Governor Deval L. Patrick for Barack H. Obama's Democratic

presidential campaign. Obama worked the rally, emphasizing his truthfulness as a candidate: "I will not be a perfect president, but I will always tell you what I think," he said. "I am a White Sox fan," he said, momentarily stunning the Boston crowd. "You don't want somebody who pretends to be a [Red] Sox fan.

You want a principled sports fan."

The crowd members, many sporting Red Soy hate and t-shirts plauded that sentiment and waved their "Obama '08" signs in response. Not only did the throng fill the fenced-in area around the Common pavilion, but additional listeners lined the area around the fences. The gathering was primarily of college

Obama, Page 16

In Short

¶ The pre-trial hearing for Star A. Simpson '10, originally scheduled for 9 a.m. Monday, Oct. 29, has been postponed until Monday, Nov. 5. She received a continuance in the East Boston District Court yesterday morning. Simpson is charged with disorderly conduct and possession of a hoax device for appearing in Logan Airport's Terminal C baggage claim area wearing a circuit board that lit up and was connected to a battery.

Send news information and tips to news@the-tech.mit.edu.

THE TECH October 30, 2007 Page 2

World & Nation

Consumer Safety Chief Doesn't **Want More Funds**

By Stephen Labaton

THE NEW YORK TIMES

WASHINGTON

The nation's top official for consumer product safety has asked Congress in recent days to reject legislation intended to strengthen the agency that polices thousands of consumer goods, from toys to tools.

On the eve of an important Senate committee meeting to consider the legislation, Nancy A. Nord, the acting chairwoman of the Consumer Product Safety Commission, has asked lawmakers in two letters not to approve the bulk of legislation that would increase the agency's authority, double its budget and sharply increase its dwindling staff.

Nord opposes provisions that would increase the maximum penalties for safety violations and make it easier for the government to make public reports of faulty products, protect industry whistle-blowers and prosecute executives of companies that willfully violate laws.

The measure is an effort to buttress an agency that has been under siege because of a raft of tainted and dangerous products manufactured both domestically and abroad. In the last two months alone, more than 13 million toys have been recalled after tests indicated lead levels that sometimes reached almost 200 times the safety limit.

Nord's opposition to important elements of the legislation is consistent with the broadly deregulatory approach of the Bush administration over the last seven years. In a variety of areas, from antitrust to trucking and worker safety, officials appointed by President Bush have sought to reduce the role of regulation and government in the marketplace.

Crackdown On Tainted Products Nets 774 Arrests, China Says

By David Barboza

The Chinese government said Monday that it had arrested 774 people over the past two months as part of a nationwide crackdown on the production and sale of tainted food, drugs and agricultural products.

Government regulators hailed the arrests as a major step forward for food and drug safety, and said the suspects were detained during nationwide inspections of thousands of restaurants, food and drug production facilities and wholesale food markets.

Determined to counter accusations that it has been producing and even exporting tainted goods, China vowed earlier this year to revamp its food and drug safety regulations and to close down illegal manufacturers and exporters.

But the government also acknowledged Monday that problems remain. As of earlier this month, it said, only 82 percent of the food tested in medium and large cities in China met food safety standards, and nearly 30 percent of the restaurants surveyed by regulators had failed food safety inspections.

Sas Ends Use Of Turboprop After **Third Crash Landing**

By Ian Austen and Nicola Clark

OTTAWA

Scandinavian Airlines announced Monday that it would abandon a fleet of 27 planes made by Bombardier of Canada that have been involved in crash landings.

The unusual step by SAS came after one of its Dash 8 Q400 commuter planes crash-landed on Saturday because of landing-gear failure, the third such incident involving the airline in the last two months.

In March, landing-gear problems forced the crash landing of a fourth Q400 belonging to a Japanese carrier.

No other airline flying Q400s removed the aircraft, a turboprop plane, from service, permanently or otherwise, after the SAS announcement, including Horizon Air in the United States, which has 33 of the planes.

5 Nuclear Facilities To Miss **Upcoming Security Deadline**

By Matthew L. Wald THE NEW YORK TIMES

WASHINGTON

More than a year after Congress told the Energy Department to harden the nation's nuclear bomb factories and laboratories against terrorist raids, five of the 11 sites are certain to miss their deadlines, some by many years, the Government Accountability Office has found.

The Energy Department has put off security improvements at some sites that store plutonium because it plans to consolidate the material at central locations, but the GAO said in a Senate briefing that the project is also likely to lag. A copy of the briefing materials was provided to The New York Times by a private group, the Project on Government Oversight, which has long been pushing for better security at the weapons sites.

Danielle Brian, the group's executive director, said that although the deadline set by Congress was tight, if the Energy Department "had taken seriously consolidating and making this an expedited effort, they wouldn't be having these prob-

Robert Alvarez, an adviser to the energy secretary in the Clinton administration, said there was wide agreement that centralizing the fuel was a good idea. But Alvarez added, "There's a lot of pushback about moving fissile materials from a site, because then you lose a portion of your budget and prestige.'

The Energy Department declined requests for an interview, but Michael Kilpatrick, a deputy chief at the department's Office of Health, Safety and Security, said in a statement that the steps under way were "further enhancements and better protection to some of the most secure facilities in the country."

One site that will miss its deadline by years is the Oak Ridge National Laboratory in Tennessee, which holds a large stock of weapons-usable uranium. The laboratory plans to dilute the uranium, but that will take until 2015, the auditors

Two other sites that will miss their deadlines are operated by the National Nuclear Security Administration, which is responsible for weapons security. The agency was established in 1999 after a number

of security breaches in the weapons complex, and in January its director was forced to resign because of other security lanses.

After the 9/11 attacks, the Energy Department changed its "design basis threat," the description of the attacking force against which the weapons sites should prepare their defenses. The details of this hypothetical design basis threat are classified, but the new definition specifies a larger and more capable group of attackers.

To emphasize the importance of the preparations, Congress wrote into law that the Energy Department sites should submit plans on how it would meet the requirements. Recognizing that much of the department's work runs far behind schedule, Congress specified that if a delay were necessary, it would have to be approved by the secretary or deputy secretary of energy.

The Energy Department told Congress in 2006 that six sites would meet the 2008 deadline. But the accountability office said one of those, the Oak Ridge National Laboratory, would not make the

General Motors to Build Hybrid Research Facility in Shanghai

By Keith Bradsher

THE NEW YORK TIMES

GM announced Monday that it would build an advanced research center in Shanghai to develop hybrid technology and other advanced designs, in the latest research investment in China by a foreign automaker despite chronic problems with purloined car designs.

GM already has a 1,300-employee research center in Shanghai with its main Chinese joint venture, the Shanghai Automotive Industry Corp.. The separate, wholly owned research center announced Monday for the most advanced vehicle engineering and development could help GM keep greater control over new technologies than conducting the research through the joint venture.

Rick Wagoner, GM's chairman and chief executive, said that it was

essential to do advanced research in China so as to adapt technologies quickly to locally sold models. GM's sales in China have grown to an estimated 1 million this year from 20,000 in 1999, making it the company's second-largest market after the United States.

Wagoner insisted that GM could keep control of intellectual property in China even while doing cuttingedge research here. "We think it's a prudent tradeoff and we think the risk is manageable," he said.

Chen Hong, a top SAIC executive, said nothing on the new GM project but welcomed a separate plan on Monday for GM and SAIC to provide a \$5 million grant jointly over five years for a much smaller research venture at Tsinghua University in Beijing. That project that will give GM closer access to government officials here

Chinese automakers have repeatedly triggered confrontations with Western automakers by introducing vehicles that appear identical to Western models, but there has not yet been a case of a Chinese automaker copying advanced Western engine technology.

GM's largest hybrid car research efforts will remain in the United States, but research will also be done collaboratively in China and information will be shared with China from GM's partnerships with universities around the world, Wagoner said, adding that, "For us, it's not a question of either/or."

Honda, Ford, Volkswagen and other foreign automakers have all announced their own research centers in China in recent months. although no one has been as aggressive as GM in transferring technology to China.

Sunny Days Ahead

By Angela Zalucha

As the Boston Red Sox return home for their victory parade today, nature will treat them to a beautifully sunny sky and relatively mild October temperatures. Expect a high around 60°F (16°C) today and an even warmer 65°F (18°C) tomorrow. Make sure your Halloween costume is well attached tomorrow evening as it could get rather windy. Look for a chance of a sprinkle on Thursday with a high of 61°F (16°C). Night-time temperatures, as you may have noticed, are beginning to get on the chilly side, so if you plan to be out late a coat and perhaps some gloves or a hat might be a good idea.

Tropical Storm Noel achieved tropical storm status Sunday afternoon and in the meantime has been moving northwards across Haiti. The storm is forecasted to continue to follow this northward track, and storm warnings have been posted for the eastern Florida coast. October tropical cyclones are not rare, as November 30 is the official end date of hurricane season in the North

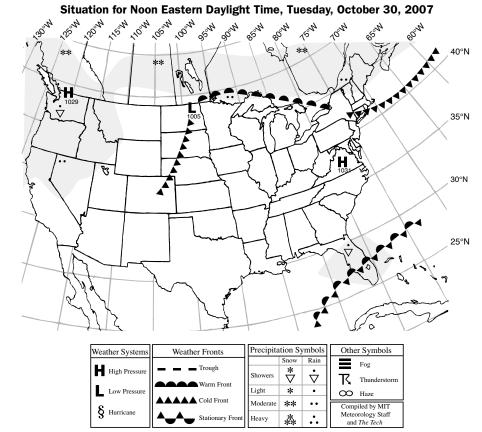
Extended Forecast

Today: Sunny. High 60°F (16°C). Tonight: Clear. Low 47°F (8°C).

Tomorrow: Sunny and brisk. High 65°F (18°C).

Tomorrow night: Partly cloudy. Low 50°F (10°C). Thursday: Mostly cloudy with a slight chance of sprinkles. High 61°F

WEATHER



Nasa Extends Shuttle Mission To Repair Rotary Joint On ISS

By John Schwartz

NASA mission managers will add an extra day to the mission of the space shuttle Discovery so crewmen can do "exploratory surgery" on a malfunctioning part of the International Space Station's power system, the space agency announced on Mon-

The problem concerns a rotary joint on the right side of the station that turns the station's solar arrays so they face the sun during orbit. During an initial examination on Sunday, the spacewalking astronaut Daniel M. Tani collected what he called "metalto-metal scraping" that peppered the inside of the joint mechanism. Tani picked up some of the fragments with tape and took them back into the space station.

Mission managers hoped the shavings were aluminized mylar, a foil used as backing on the insulating covers, and not steel, which would suggest that the mechanism is grinding against itself. They asked Peggy A. Whitson, the space station commander, to conduct an experiment of putting some of the filings on a piece of paper and running a magnet un-

Aluminum is not magnetic; steel is. The filings "followed the magnet around," Michael T. Suffredini, the space station program manager, said on Monday morning in a briefing with reporters.

Mission controllers had known of the problem for several weeks, when a mission control employee contractor noticed an unusual vibration. Station managers have decided to lock the array in a position that allows it to collect a fair amount of sunlight until the problem can be fully investigated and resolved.

That move will keep the joint from literally grinding to a halt, but will limit the amount of electricity the station can generate for itself and an attached shuttle. That is not a problem for the current mission, Suffredini said, or for the next mission, in December, when a new science module will be brought up and at-

But if the problem is not corrected and the rotation resumed, further construction could be constrained by the ability to provide power.

"I don't think we're in any situation we can't recover from," Suffredini said. "It's just a matter of time."

Suffredini announced two initial moves to get a better sense of the problem. On Tuesday, another spacewalker, Scott E. Parazynski, will peek inside the opposite rotary joint on the left side, which is running smoothly, to help engineers and scientists "figure out what normal means" and compare that with what they are seeing on the right side.

Then the fourth spacewalk, which was to be a demonstration of shuttle repair techniques, will be extended to six hours or more and devoted entirely to taking each of the 22 insulating covers off the right joint and examining the mechanism — a process that Suffredini called "exploratory

The problems of the rotary joint came to the fore during a mission that has otherwise gone smoothly. The day's activities included an agile robotic handoff between the space station and shuttle robotic arms of a solar array and truss to relocate the 17.5-ton assembly to its permanent home on the station's left side.

Venezuelans Oppose Subsidy Cuts For Fuel Despite Economic Woes

By Simon Romero

THE NEW YORK TIMES

CARACAS, VENEZUELA

In a country moving toward socialism, the beneficiaries of government largess here are still people like Nicolas Taurisano, a businessman who dabbles in real estate and machinery imports. He is the proud owner of a Hummer.

Motorists in the United States smarting from rising gasoline prices, take note: Taurisano pays the equivalent of \$1.50 to fill his Hummer's tank. Thanks to a decades-old subsidy that has proven devilishly complex to undo, gasoline in Venezuela costs about seven cents a gallon compared with an average \$2.86 a gallon in the United States.

"It is one clear benefit to living in an otherwise challenging country," said Taurisano, 34, who also owns a BMW, a Mercedes-Benz, a Ferrari and a Porsche.

Many Venezuelans consider the subsidy a birthright even though it bypasses the poor, who rely on relatively expensive and often dangerous public transportation. Economists of President Hugo Chavez more than nine billion dollars a year.

Critics of Chavez, and the president himself, agree that the subsidy is a threat to his project to transform Venezuela into a socialist society, draining huge amounts of money from the national oil company's sales each year that could be used for his social welfare programs.

Gasoline prices have often been a taboo subject for Venezuelan governments. There are memories of the riots in 1989, in which hundreds, perhaps thousands, of people died after protests set off by an increase in gasoline prices that resulted in higher transportation costs. That instability helped set in motion a failed coup attempt by Chavez in 1992, which first thrust him into the public eye.

After his re-election to a sixyear term last December, he was reelected in Dec. 2006, per clips when his political capital was abundant, Chavez called the gasoline prices "disgusting" and said his government was planning to raise them with a measure "financed by those who own a BMW or a tremendous four-wheel

other matters, avoiding the touchy subject.

The link between social peace and gasoline so cheap it is almost given away is evident to many motorists. "If you raise gasoline, the people revolt," said Janeth Lara, 40, an administrator at the Caracas Stock Exchange, as she waited for an attendant to fill the tank of her Jeep Grand Cherokee at a gas station here on a recent day. "It is the only cheap thing.'

During an oil boom that is lifting the incomes of both rich and poor, Venezuela is grappling with Latin America's highest inflation rate, about 16 percent. In a rare move in a world growing used to a weak dollar, The local currency, the bollvar, has plunged almost 50 percent in unregulated trading this year, reaching a record low of about 6,000 to the dollar in October (the official rate is fixed at 2,150 to the dollar.)

Gasoline is one of the few products subject to price controls here that is in relatively ample supply. Newspapers recently have been filled with tales of consumers struggling to find milk. Last month, eggs were

Participants In Halted Medical Trials **Left Uninformed Of Results Of Tests**

THE NEW YORK TIMES

When Congress passed a bill in September requiring makers of drugs and medical devices to disclose the results of clinical trials for all approved products, advocates of greater study disclosure applauded

But a provision that would have mandated disclosures for another group of products never made it into the final version of the bill. It would have covered products tested on patients, but dropped before market-

"Trial sponsors can still choose to keep information about some trials confidential, creating serious ethical concerns," said Dr. Deborah A. Zarin, the director of ClinicalTrials. gov, a Web site run by the National Library of Medicine.

Many experts said the recent congressional debate underscored a troubling fact: some patients in clinical studies never learn about test results. The problem may be particularly relevant to those implanted with medical devices that stay with them

For manufacturers and researchers alike, "there is a tremendous incentive to go on, to forget about the old and move on to the new," said Drummond Rennie, a deputy editor at The Journal of the American Medical Association, who has written critically about clinical trials.

There are no data available for the number of patients who participate in studies of drugs and medical devices that never make it to the marketplace, though it is likely that the number runs into the thousands. A product may not reach the market for a variety of reasons — it may not perform well in trials, for example, or it may be rejected by regulators.

Although researchers conducting clinical studies are not required to disclose test results to study participants, they must alert patients taking part in a test to emerging product

Companies also have to keep promises made to regulators at the time a trial began, like agreements to follow the health of study patients.

get approval to begin trials in the first

But researchers and manufacturers do not always fulfill even those minimal requirements. And such failing may be particularly acute in trials of implanted devices, since those products remain inside patients.

In August, for example, the Food and Drug Administration sent a warning to Boston Scientific after investigators discovered the company's diligence in following up with patients faltered around the time it dropped a product under development.

Paul Donovan, a spokesman for Boston Scientific, said that the company was moving to address the FDA's concerns. While six patients involved in the study have died, Donovan said that the company did not believe that those deaths were related to either the stent or burst aneurysms.

'There were instances of reporting that was not done in a complete and timely manner, and we are addressing these shortcomings," Dono-

Boston Sweeps Series With 4-3 Victory Over Colorado

By Tyler Kepner

They have gone from exorcism to coronation in record time. The Boston Red Sox, who fought ghosts for most of the last century, are the premier team of the new millennium.

The Red Sox won their second World Series in four years on Sunday, edging the Colorado Rockies, 4-3, in Game 4 at Coors Field. They are the first team to win multiple championships since 2000, and with a deep payroll and a stable of talented young pitchers, they may be poised for more.

Mike Lowell doubled and homered and was named Most Valuable Player in the Series for hitting .400 with six runs scored and four runs batted in. Jon Lester — who, like Lowell, is a cancer survivor - worked five and two-thirds shutout innings for the victory.

Boston has won all eight of its World Series games under Manager Terry Francona, and this sweep was nearly as emphatic as the one in 2004, when the Red Sox never trailed against the St. Louis Cardinals.

Their sweep was the first in 80 years to feature victories by four different starting pitchers. The last team to do it? The 1927 Yankees

Weather Aids In Containing Most Fires In California

By Jennifer Steinhauer

A week after a wave of fires began their deadly streak across Southern California, firefighters were close to claiming victory Sunday, with all but two of what had been 24 blazes more than half contained.

The fires — which burned through more than 516,000 acres, killing seven people and injuring close to 90 — were down to seven by Sunday afternoon. Officials expected that, barring significant changes in wind patterns and temperatures, all would be out by early in the week.

'We remain guardedly optimistic," said Mary Ann Aldrich, a spokeswoman for the California Department of Forestry and Fire Protection in Sacramento. "They've made great progress.

Aided by cooler air and some rain over the weekend, a residential canyon in Orange County was spared from flames that threatened over

That blaze, which officials believe was set by an arsonist, is known as the Santiago fire and consumed nearly 30,000 acres before firefighters were able to contain 50 percent of it by Sunday.

In San Diego County, the so-called Witch fire — which was the largest, burning through nearly 200,000 acres — was 90 percent contained Sunday afternoon. The Poomacha fire, also in San Diego County, was half contained, officials said.

While temperatures began to rise again Sunday, more humidity was expected on Monday, which would further aid the firefighting effort.

The sources of the fires remained under investigation, but the authorities believed that power lines downed by strong winds and possibly camp fires contributed to some blazes, with arsonists starting others.

Paulson In India With A Wish List For Economic Changes

By Heather Timmons

THE NEW YORK TIMES

MUMBAI, INDIA

Treasury Secretary Henry M. Paulson Jr. who landed in Calcutta over the weekend, came bearing a long list of advice, requests, predictions and recommendations for India, which has the world's secondfastest-growing major economy after China.

Paulson is making his first trip to India as a government official to urge a successful conclusion of the deadlocked world trade talks, to push for expansion of India's capital markets and to urge regulators to open the financial sector to foreigners.

His visit comes as international investors' fears about the U.S. economy have pushed cash into Indian stock markets, propelling them to records and generating concerns of a bubble. The Sensex index of the Bombay Stock Exchange traded above 20,000 for the first time on Monday, and closed up 3.82 percent at 19,977.67.

Late last week, market regulators in India approved rules that prohibit anonymous foreign investors from participating in India's markets. The new rules could drive some hedge funds out of the markets.

Paulson, a former chairman of the investment bank Goldman Sachs, said Monday that he thought these rules could be detrimental if not applied correctly. Restrictions on capital flows are "blunt instruments and can have unintended consequences," he warned.

The country needs to spend an estimated \$500 billion building ds, power grids and ports, or risk stifling growth, which has a aged nearly 9 percent annually in the last three years. American banks and financial companies have been studying the market closely, hoping to finance the investment by expanding India's nascent bond market.

Campuses Mourn Loss Of Seven Students In House Fire

THE NEW YORK TIMES

Two university campuses grieved on Monday after a fast-moving fire on Sunday swept through a beach house at a resort in North Carolina and killed seven college students on a weekend getaway.

As investigators sought the cause of the fire and worked to identify victims, students at the University of South Carolina, where six of the victims were enrolled, were in mourning. The seventh victim was reported to have been a student at Clemson University. Six students

The fire broke out around 7 a.m. at a beach house on Ocean Isle Beach on the southern end of North Carolina, about 30 miles north of Myrtle Beach, S.C. Witnesses described seeing people jumping out of windows, screaming and struggling to get out as the fire raced through the home. The house, a two-story structure on stilts, was consumed by flames, and a charred frame was nearly all that remained on Monday

Dennis Pruitt, dean of students at the University of South Carolina, said many of those in the house were members of the Delta Delta Delta sorority or the Sigma Alpha Epsilon fraternity. The survivors were taken to the Brunswick Community Hospital and released.

THE TECH October 30, 2007 Page 4

UPINION



Chairman Michael McGraw-Herdeg '08

> **Editor in Chief** Angeline Wang '09

> **Business Manager** Cokie Hu '08

Managing Editor Austin Chu '08

NEWS STAFF

Editors: Valery K. Brobbey Semenkovich '09, Joyce Kwan '10; Associate Editors: Yi Zhou '09, Nick Bushvvak '10, JiHye Kim '10; Staff: Waseem S. Daher G, Curt Fischer G, Ray C. He G, John A. Hawkinson '98, Hanhan Wang '07, Jiao Wang '08, Daniela Cako '09, Mei-Hsin Cheng '09, Gabriel Fouasnon '09, Hannah Hsieh '09, Diana Jue '09, Ji Qi '09, Yinuo Qian '09, Kirtana Raja '09, Yuri Hanada '10, Swetha Kambhampati '10, Apoorva Murarka '10, Manisha Padi '10, Joanne Y. Shih '10, Arkajit Dey '11, Jeff Guo '11, Ryan Ko '11, Natasha Plotkin '11; Meteorologists: Cegeon Chan G, Jon Moskaitis G, Michael J. Ring G, Roberto Rondanelli G, Scott Stransky G, Brian H. Tang G, Tim Whitcomb G, John K. Williams G, Angela Zalucha G, Garrett P. Marino '08, Mike Yee '08.

PRODUCTION STAFF

Editor: Jessica Witchley '10; Associate Editors: K. Nichole Treadway Howland '11; Staff: Yue Li '11, Mark Yen '11.

Editor: Aditya Kohli '09; Staff: Josh Levinger '07, Justin Wong '07, Ali S. Wyne '08, Krishna Gupta '09.

SPORTS STAFF

Editor: Caroline Huang '10; Staff: James Zorich '08, Albert Ni '09.

ARTS STAFF

Editors: Jillian A. Berry '08, Sarah Dupuis 10; Staff: Bogdan Fedeles G, Kapil Amarnath '07, Tony Hwang '07, Andrew Lee '07, Alice Macdonald '08, Tyson C. McNulty '08, Tina Ro

PHOTOGRAPHY STAFF

Editors: Ricardo Ramirez '09, Eric D. Schmiedl '09; Associate Editor: Omari Stephens '08; Staff: Alex H. Chan G, David Da He G, Andrew T. Lukmann G, Martin Segado G, Scott Johnston '03, Yun Wu '06, Gheorghe Chistol 07, Fred Gay '07, Dmitry Kashlev '07, Perry Hung '08, Christina Kang '08, Arthur Petron '08, David Reshef '08, David M. Templeton '08, Ana Malagon '09, Peter H. Rigano '09, Jerzy Szablowski '09, Diana Ye '09, Daniel P. Beauboeuf '10, Mindy Eng '10, Helen Hou '10, Catherine Huang '10, Bea Jarrett '10, Samuel E. Kronick '10, Diane Rak '10, Andrea Robles '10, Aaron Sampson '10, Jongu Shin '10, William Yee '10, Kari Williams '11, Sherry Yan '11.

CAMPUS LIFE STAFF

Editor: Marie Y. Thibault '08; Staff: Charles Lin G, Bruce Wu G, Kailas Narendran '01, Elizabeth Zakszewski '06, Victor Cabral '07, Janet S. Lieberman '07, Matt Zedler '07, James Scott Berdahl '08, Michael T. Lin '11; Cartoonists: Scott Burdick G, Daniel Klein-Marcuschamer G, Roberto Perez-Franco G, Emezie Okorafor '03, Nancy Hua '07, Jia Lou '07, Andrew Spann '07, Ash Turza '08, Danbee Kim '09, Roxana G. Safipour '09.

BUSINESS STAFF

Advertising Managers: Neeharika Bhartiya '10, Ritu Tandon '10; Operations Manager: Michael Kuo '10; Staff: Jeffrey Chang '08, Tai Ho Kang '08, Jennifer Chu '10, Kevin Wang '10, Heymian Wong '10.

TECHNOLOGY STAFF

Director: Shreyes Seshasai '08.

EDITORS AT LARGE

Contributing Editors: Rosa Cao G, Brian Hemond G, Benjamin P. Gleitzman '09; Senior Editor: Satwiksai Seshasai G.

ADVISORY BOARD

Paul E. Schindler, Jr. '74, V. Michael Bove '83, Barry Surman '84, Robert E. Malchman '85, Deborah A. Levinson '91, Jonathan E. D. Richmond PhD '91, Saul Blumenthal '98, Frank Dabek '00, Daniel Ryan Bersak '02, Eric J. Cholankeril '02, Jordan Rubin '02, Nathan Collins SM '03, Keith J. Winstein '03, Akshay R. Patil '04, Kelley Rivoire '06, Beckett W. Sterner '06, Marissa Vogt '06, B. D. Colen.

PRODUCTION STAFF FOR THIS ISSUE

Editor: Austin Chu '08, Jessica Witchley '10; Associate Editor: Steve Howland '11; Staff: Michael McGraw-Herdeg '08, Yue Li '11.

The Tech (ISSN 0148-9607) is published on Tuesdays and Fridays during the academic year (except during MIT vacations), Wednesdays during January, and monthly during the summer by The Tech, Room W20-483, 84 Massachusetts Avenue, Cambridge, Mass. 02139. Subscriptions are \$45.00 per year (third class) and \$105.00 (first class). **POSTMASTER:** Please send all address changes to our mailing address: The Tech, P.O. Box 397029, Cambridge, Mass. 02139-7029. **TELEPHONE:** Editorial: (617) 253-1541. Business: (617) 258-8324. Facsimile: (617) 258-8226. Advertising, subscription, and typesetting rates available. Entire contents © 2007 The Tech. Printed on recycled paper by Charles River Publishing.

Letters To The Editor

Universities Show Lack of Support for Israel

Mr. Stephen D. Fried's article ("Why the U.S. and Israel Are Strong Allies," Oct. 23, 2007) was a strong defense of the U.S.-Israel alliance, and written in a mature and elegant prose style. However, I think the problem faced by Israel and its American supporters is in our universities. Strong anti-Israeli and pro-Palestinian views are expressed at many universities today, including MIT. The American and European left has decided that corrupt, tyrannical regimes run by Islamic fundamentalists are PC, while American and Israeli democracies are treated with contempt.

Fried Column Inaccurate

Stephen D. Fried's column on U.S.-Israel cooperation ("Why the U.S. and Israel Are Strong Allies," Oct. 23, 2007) contains an error. He writes that in 1984, 8,000 Ethiopian Jews, known then as Falasha, were rescued from Sudan and flown to Israel. He goes on to say that they were in danger of being killed by some para-military gang, and that their salvation was accomplished with U.S. taxpayer funds.

Actually, no taxpayer funds were used. All the money for the rescue came from private contributions by American Jews. Irving Kessler and Neale Katz of the United Israel Appeal

raised and distributed tens of millions of dollars - some I received to cover costs in Khartoum. Operations Moses and Sheba were trilateral operations with the government of Sudan an active and willing participant. Without the help of then president Jaafar Nimieri, the rescue would not have taken place.

Finally, the thousand or more Black Jews who died in Sudan were killed by disease, starvation, lack of shelter, and contaminated water. A full account of Operation Moses and the efforts of the American Association for Ethiopian Jews is contained in Howard Lenhoff's book Black Jews, Jews, and Other Heroes.

Jerry L. Weaver Refugee Affairs Counselor at the U.S. Embassy in Khartoum from 1982-85

Walt and Mearsheimer Misinterpreted

Danial Lashkari

I believe Stephen D. Fried's account of the addresses made by Stephen M. Walt and John J. Mearsheimer ("Why the U.S. and Israel Are Strong Allies," Oct. 23, 2007) misrepresents all the points they actually made in the CIS STARR Forum on Oct. 3. In fact, his report was so substantially different from my recollection of their speeches that I had to doublecheck the names of the speakers to make sure that the article was actually referring to the same event as I had attended. When I further reviewed the video of the event (available online at http://web.mit.edu/cis/ starr.html) to see if there were comments that I had missed, I was surprised to find out how explicitly the speakers had discussed and denied some of the viewpoints Fried ascribes to them.

Let me give a brief outline of what Walt and Mearsheimer actually stated in the STARR Forum. They first presented evidence for the existence of an influential interest group that lobbies in favor of certain U.S. policies towards the Middle East. They described most of the efforts made by such groups as "legitimate forms of po-

litical engagement" and rejected the anti-Semitic conspiracy theories which take the role of these groups to an unreasonable extreme. Nevertheless, they expressed concern about the difficulty of openly discussing and questioning these policies in the American political sphere. They went

When it comes to such a controversial and sensitive subject, where emotional biases can easily overcome analytical arguments, we should be more cautious.

on to argue that many of these policies have a negative impact, and tried to provide evidence for their claim.

Mr. Fried, on the other hand, starts by summarizing Walt and Mearsheimer's position as simply an argument "that support of Israel is not an American interest." This is worse than a

mis-interpretation — it's simply not true. Walt and Mearsheimer were absolutely clear that their criticism is toward the "unconditional" or "onesided" nature of U.S. support for Israel. They are not against supporting Israel as a general principle, but rather, criticize the unilateral way in which the U.S. has implemented this support.

By analogy, supporting a friend does not require that you agree with every single thing that your friend does — and only a completely black-and-white view of friendship would take nuanced disagreement as a blanket denial of support for your friend.

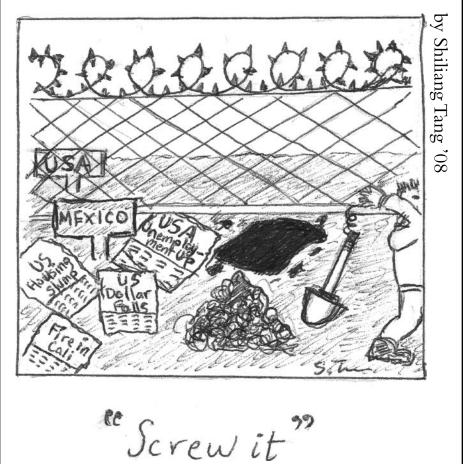
Fried then goes on to describe Walt and Mearsheimer's thesis as: "Israel's security is ultimately not of immediate concern to the United States." This statement is an even more extreme distortion of their views. One of Walt and Mearsheimer's criticisms of U.S. foreign policy in the Middle East is that America's unconditional support, in the long run, has not been in Israel's own interest. How can one reconcile that with the claim that they reject the importance of Israel's interest in the eyes of US? Walt and Mearsheimer explicitly stated in their address that "US should come to Israel's aid if its survival is ever in jeopardy."

Nevertheless, Fried insists on implying that Walt and Mearsheimer would not care to save Jewish lives in historical situations such as those of Auschwitz 1944 or Sudan 1984. He elaborates on this point and calls them neo-realists who believe that "America's national interests supercede any moral imperative or ethical conscience." He even extrapolates their viewpoints so far as to assume that they are against U.S. intervention in Darfur, trying to stir up moral outrage. I would expect someone as concerned with moral issues as Fried to be more aware of the ethical implications of making ungrounded accusations.

I cannot help seeing Fried's column as unfair, if not outright offensive. While I commend Mr. Fried's passion for the American ideals of "democracy, free-market economy, free press, and Western-styled civil rights," I also believe that our faith in specific values should not impede us from genuinely listening to other people's ideas and evaluating them without a priori judgment.

If we cannot practice such an attitude in an academic environment, it is hard to expect the public to do so in the outside world. In particular, when it comes to such a controversial and sensitive subject, where emotional biases can easily overcome analytical arguments, we should be more cautious — it is so easy to form negative ideas about people without even learning what they have to say Walt and Mearsheimer's talk like many other such events on campus, can be starting points for constructive and educational discussions here at MIT, as long as we make sincere efforts toward that end.

Danial Lashkari is a graduate student in Electrical Engineering and Computer Science.



Opinion Policy

Editorials are the official opinion of *The Tech*. They are written by the editorial board, which consists of Chairman Michael McGraw-Herdeg, Editor in Chief Angeline Wang, Managing Editor Austin Chu, Opinion Editor Aditya Kohli, and Contributing Editor Rosa Cao.

Dissents are the opinions of signed members of the editorial board choosing to publish their disagreement with the editorial.

Letters to the editor, columns, and editorial cartoons are written by individuals and represent the opinion of the author, not necessarily that of the newspaper. Electronic submissions are encouraged and should be sent to letters@the-tech.mit.edu. Hard copy submissions should be addressed to The Tech, P.O. Box 397029, Cambridge, Mass. 02139-7029, or sent by interdepartmental mail to Room W20-483. All submissions are due by 4:30 p.m. two days before the date of publication.

Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. The Tech reserves the right to edit or condense letters; shorter letters will be given higher priority. Once submitted, all letters become

property of The Tech, and will not be returned. Letters, columns, and cartoons may also be posted on The Tech's Web site and/or printed or published in any other format or medium now known or later that becomes known. The Tech makes no commitment to publish all the letters received.

Guest columns are opinion articles submitted by members of the MIT or local community and have the author's name in italics. Columns without italics are written by *Tech* staff.

To Reach Us

The Tech's telephone number is (617) 253-1541. E-mail is the easiest way to reach any member of our staff. If you are unsure whom to contact, send mail to general@the-tech.mit.edu, and it will be directed to the appropriate person. You can reach the editor in chief by e-mailing eic@the-tech.mit.edu. Please send press releases, requests for coverage, and information about errors that call for correction to news@the-tech.mit.edu. Letters to the editor should be sent to letters@the-tech.mit.edu. The Tech can be found on the World Wide Web at http://www-tech.mit.edu.

Campus Life Squid vs. Whale

Undead on the Prowl

By Charles Lin

Being a sensible person, I immediately scope out every place I'm at to formulate an emergency plan in the event of a zombie attack. Having recently become acquainted with MIT and since Halloween is tomorrow, I feel I should share some of my zombie prevention insights.

In the likely event of a zombie outbreak in Cambridge, MIT will certainly be an immediate target of the zombie horde. As we all know, zombies feast on brains, juicy brains. And unfortunately, the brains at MIT are pretty juicy and delicious. Thus the zombie mobs will rapidly descend onto campus creating a perilous situation for all involved.

If you're lucky enough to not get trapped on campus, I've already figured out a sure fire way to escape the massacre unscathed: go to Harvard. Your brain waves will be drowned out by the minds of young adult plagiarizers and future politicians. If you manage to get there, you're done. Home free.

For the rest of us still on campus, first things first. You must immediately form a small group. Sticking with the crowd only increases danger. Don't go wherever the government or MIT officials tell you to go. Their strongholds will inevitably be overrun. Always keep eye protection and band-aids with you. Forty-five percent of all zombie infections occur as a result of zombie contaminant entering an open wound or the eyes.

Remember, anything around you can be used as a weapon. Laboratories are a great place to improvise weapons. Get yourself some rubber tubing, a Bunsen burner, and some ethanol and you've got yourself a flamethrower. If you can't make it to a lab, try getting to the shooting range on campus. Wherever I go, I always make a mental note of the fastest route to the shooting range.

Having extensive knowledge of zombie behavior, I can tell you that zombies preferentially target heroes, jerks, The Man,

and the one guy who keeps saying, "We're all gonna die." Luckily, zombies will often spare pregnant ladies, the unassuming nice guy, and small children if they're relevant to the plot. The case for hot chicks is somewhat up in the air. On the one hand, there's a good chance you will be attacked very early on in the game, and it will be spectacular. However, should you befriend the unassuming nice guy, you'll probably make it through the whole mess. The downside is that you'll fall in love with the unassuming nice guy. Nobody wants

Be very careful in forming your group. You know that poker saying that if you can't spot the sucker at the table, it's you? If you're in a group with a pregnant lady, an adorable little girl, and the sweet but misunderstood nerd guy, guess who's gonna get eaten next. Don't get too attached to anybody in the group as chances are they'll get bitten and you'll have to decapitate them right as they transform and scream, "WHYYYY?!"

The next step is to locate a place to hunker down. These are the main criteria of a good hiding place: no zombie entrances, plenty of emergency exits, and a stash of food. Elevated areas are a plus, as zombies can't climb walls (with the exception of rage zombies). They however can climb stairs, so don't get stuck on the roof of the Green Building.

Once you've settled down, prepare to get overrun by zombies. This will happen just as things appear to be safe. Power will almost certainly go out (yes, even at MIT), and the horde will be upon you. Fight them as best you can and remember to do at least one noble thing so you have a reason to be saved. When the end looks near, don't worry. Zombies are always defeated by a deus ex machina. Just close your eyes, and before you know it, the growling sounds of the predatory undead will be replaced by the joyous whoosh of napalm raining down.

Charles Lin is wishing everyone a spoooooky Halloween.

Brouhaha Rhythm

One Person's Trash

By Michael T. Lin

You cannot begin to imagine how thrilled I was to find that multiple thrift stores exist within half a mile of my dormitory. You see, my mother is an expert bargain hunter and my dad loves to buy shiny electronic doodads. (With a Radio Shack just up Massachusetts Ave. and a Best Buy down it, I suspect I'm poised to follow in his footsteps.)

The genetic result, as you might imagine, is a person with a passion for cheap stuff. I haven't yet started oohing and aahing at Antiques Roadshow, but the way things are going, it's only a matter of time.

Perhaps I've just been playing too many video games where items of unspeakable value are lying hidden under rocks, inside mundane-looking barrels, and in plain sight. That would help explain my thrift shopping addiction. It would most certainly help explain why I prowl library discard carts in search of "ABCs for Barbarians."

At any rate, the driving force behind my obsession is easy enough to place: the possibility of finding something unbelievably cool that only costs a week's supply of Top Ramen. Already I've found an Aloha shirt, a brown frock coat, a pair of brand-new suspenders, and a framed cover from a 1976 issue of The New Yorker featuring a Moebius strip. Not exactly buried treasure, necessarily, but it's enough to make me feel like a proper shopper without decimating my financial resources.

With the profusion of Halloween parties this time of year, the thrift store is a Mecca for those seeking to build a costume up component by component as opposed to all at once. I have nothing against those who have the dedication to do so, but I can't afford to spend an arm, a leg, and two firstborn children to get the super-official. Collector's Edition, limited time only, infinitesimally accurate outfit. I freely admit that it would be nice to walk into a costume party wielding a light saber with the expensive kind of plastic in it, but I suppose you get what you pay for.

Of course, I could take the time to make my own clothes if I really wanted to, but the aforementioned video games have only improved my hand-eye coordination to a certain extent. Manipulating a needle and thread safely without platemail gauntlets (which I'd have to get from the thrift store) would add quite a bit of unnecessary worry, to say nothing of learning to operate the mechanized digit-eater, the sewing machine. I'd have people constantly asking me why I decided to adorn my clothes with a red polka-dot pattern along all of the seams, to which I'd have to respond by holding up the bandaged fingers I had left.

I figure I'll best limit myself to just one dangerous life skill at a time, and trying to survive cooking is all I have room for on my plate right now. Well, that and the very suspicious-looking serving of bacon I tried to prepare, which is an inexplicable shade of turquoise and has probably achieved self-aware-

Clearly, it'll be a while before I have time to learn tailoring. Looks like the secondhand stores will be seeing a lot more of me. Now if you'll excuse me, I need to go hunt down a pair of gunslinger pants, brown leather boots, and perhaps a compression coil catalyzer, if they have one.

Call SIPB with questions at x3-7788!

Ask SIPB

Drop by our office in W20-557!

BY THE STUDENT INFORMATION PROCESSING BOARD

Athena isn't just software — it's a computing environment. In today's issue of Ask SIPB, we'll look at some common questions about using hardware in the Athena environment, from USB memory keys to large monitors

These printers are all stuck — what should I do?

Occasionally, a bad document can cause cluster printers to crash with the message "79.00FE PRINTER ERROR." The printer needs to be rebooted at this stage; the power button is to the left of Tray 3.

If a print queue is excessively long, or the printer keeps reaching the 79 error after rebooting, the queue may need to be trimmed. If your own job is causing problems, please remove it with the command lprm (or lprm -Pprintername). Otherwise, you can contact the Athena printer administrators with the commands:

athena% zctl sub message printadm * athena% zwrite -i printadm

lend a message indicating which printer is stuck and wh jobs actually need to be removed. Frequently, the output of 1pq will claim a printer has "stalled" for several minutes (especially for large pdfs) when it is simply in the process of printing that job and nothing is wrong.

Can I access my USB memory keys from an Athena workstation?

Yes. From the terminal, type these commands:

athena% add consult athena% attach-usb

You'll be prompted for the cluster root password. We can't print it here, but you can find it by typing the command

Once you attach the drive, it's available in the directory /mnt/usb/. If you want to access it from the GUI, you can click on the Computer icon on the desktop, select Filesystem, mnt, and usb. When you're done with the drive, type detach-usb before removing it.

How do I write to a CD or DVD?

Writing to optical media is easy on Linux computers (it is much harder to burn CDs from the purple Sun computers). Click on the Computer icon on the desktop, and select Places | CD Creator. You can then drag and drop files from your home directory to the blank window that appears. When you're ready to burn the CD, click File | Write to Disc.

If you have an ISO file you want to burn, you can do so by right-clicking on it and selecting Write to Disc. (Note that when you're downloading large files such as ISO files, if there isn't enough room in your home directory, you can save them to /tmp/, which is temporary storage space on the current computer.)

How can I listen to music on Athena? Can I use my

If you're listening to music or otherwise using sound in public clusters, you should definitely use headphones out of courtesy to others in the cluster. On Linux machines, you can do so by running the command alsamixer. This will bring up a menu that you can manipulate with the arrow keys. Bring "Master Mono" — the built-in speakers — all the way down, and "Headphones" to the volume you like. If you still don't hear sound through the headphones, make sure that the other channels such as Master and PCM are up and

unmuted. You can mute and unmute with "m." When you're done with alsamixer, hit "q". On Sun machines, you can use the command sdtaudiocontrol to send audio to your headphones instead of the built-in speakers.

Are there scanners available in a cluster?

The New Media Center in 26-139 is a cluster of Athenacompatible Macintosh workstations that has a color scanner. The NMC also has a laser printer and computer hookups for various video formats, including DVD, VHS, and MiniDV, and a variety of Macintosh photo and video editing soft-

The SIPB office, next door to the Student Center cluster, also has two color scanners with document feeders. Feel free to drop by whenever we're open to use our scanners. You may want to call ahead (x3-7788) to check whether the office is

What other kinds of hardware do clusters have?

The clusters in 1-134 12-182 and E51-075 have a few Linux-Athena machines with 20" monitors, supporting a maximum resolution of 1680x1050.

If you'd like to print in color, you can use the printer "w20color" in CopyTech in the Student Center, or "echo"

To ask us a question, send e-mail to sipb@mit.edu. We'll try to answer you quickly, and we can address your question in our next column. You can also stop by our office in W20-557 or call us at x3-7788 if you need help. Copies of each column and pointers to additional information are posted on our Web site: http://www.mit.edu/~asksipb/.

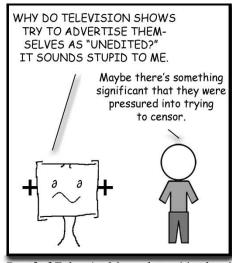


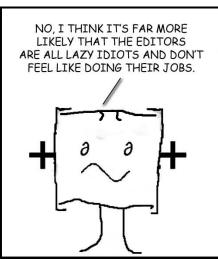
Got a lot on your mind?

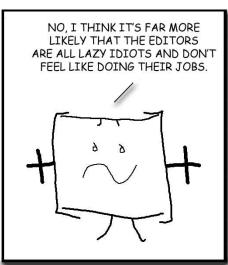
Share some thoughts with us! Write for Campus Life. join@tech.mit.edu

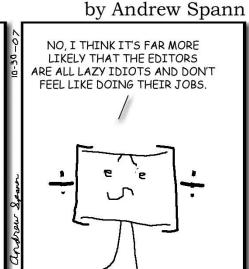


PROOF OF FALSE





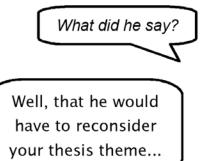




Proof of False Archive: http://web.mit.edu/spann/Public/ProofofFalseComic/

MCMXVI





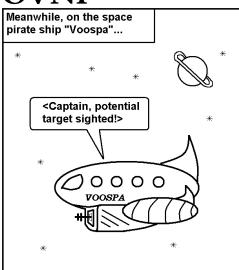


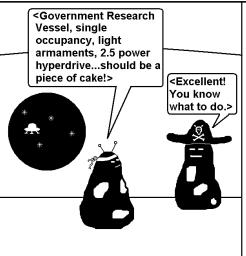


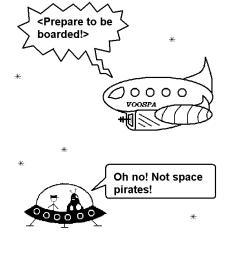
by R Perez-Franco

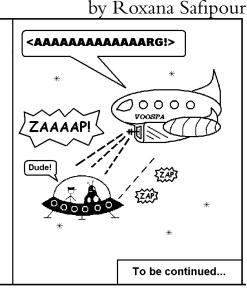
2007 Oct 2

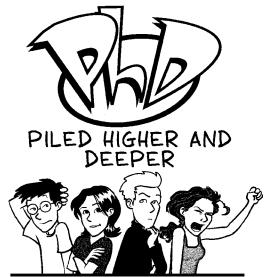




















WWW. PHDCOMICS. COM

by Scott Berdahl

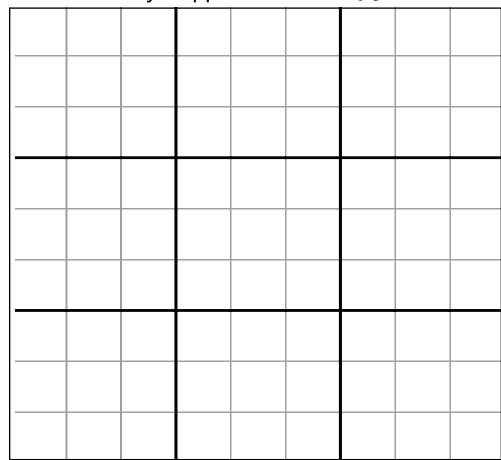


"I'm thinking the Coors Light might have been a bad call."

su do ku

© Puzzles by Pappocom Solution on page 16.

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.



Solution, tips, and computer program at http://www.sudoku.com

Doonesbury

BY GARRY TRUDEAU

Dilbert® by Scott Adams

Crossword | Solution. nage 16

ACROSS

- 1 Clampett patriarch
- 4 Pint-sized
- 9 Ships water
- 14 "Evil Woman" rock
- 15 City where Galileo taught
- 16 Baffled
- 17 Wed. follower 18 Laotian or
- Mongolian
- 19 "A League of __ Own"
- 20 Exhale sadly
- 22 Bad luck, maybe 24 Rabbits' kin
- 26 Tic-tac-toe win
- 27 Member of the
- lighting crew 29 Career officer's kid
- 34 "Giant" ranch
- 35 Arctic ice sheets 36 End of pay?

- 37 Customary extras,

- 47 Surrendered
- 53 Mmes., on

- 61 Doesn't go
- 63 Creates booties 64 Paris subway

- 38 Toyota hybrid

- 41 Gargoyle
- 43 Most hoarse

- 46 Part of NY's S.I.

- Mallorca
- 56 __-Saxon 57 Bad ball to be
- behind
- 59 Gallery display

- 39 Night in Nevers
- 40 Compass pt.
- 42 __ cum laude
- 45 Stringed
- instrument
- 48 Throat medication

- 60 Orchid tuber
- 62 Service charge

- **DOWN**
 - 1 New York team

65 Light knock

- 2 K-12, in education 3 Pre-Civil War pro-slavery
- northerners
- 4 Mineral spring
- 5 Original copy
- 6 See-ya, Pedro
- 7 Feast on Maui 8 Fritz or k.d.
- 9 Dugout youngsters 10 Beating like a
- poet's heart 11 Oh yeah, right
- 12 Solo's princess
- 13 Channel Island 21 Weapon handles
- 23 Residences 25 Actor Stephen
- 27 Actress Garson 28 Nationwide rival

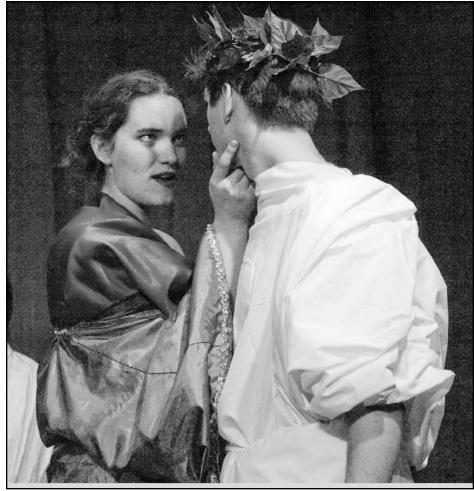
- 29 Elite category
- 30 Decisive defeat
- 31 Preliminary sketch
- 32 Skirt shape
- 33 Mongol invader
- 35 Brothers' titles 38 Banana skins
- 39 Archibald and Thurmond
- 41 Chess pieces
- 42 Start of term? 44 Young porker
- 45 Gentle breeze
- 47 Bandleader Xavier 48 Wine barrel
- 49 Son of Judah
- 50 Hybrid fruit 51 Tom Sawyer

affirmative

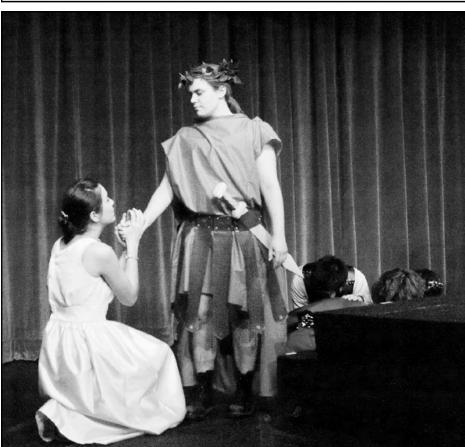
- 52 Sacred act 54 Surface size
- 55 Stair part 58 General on a

Chinese menu

Page 8 THE TECH October 30, 2007









Titus Andronicus: A Taste of Ancient Rome

MIT Shakespeare Ensemble presents *Titus Andronicus* in Kresge Little Theatre this weekend.

(clockwise from left)

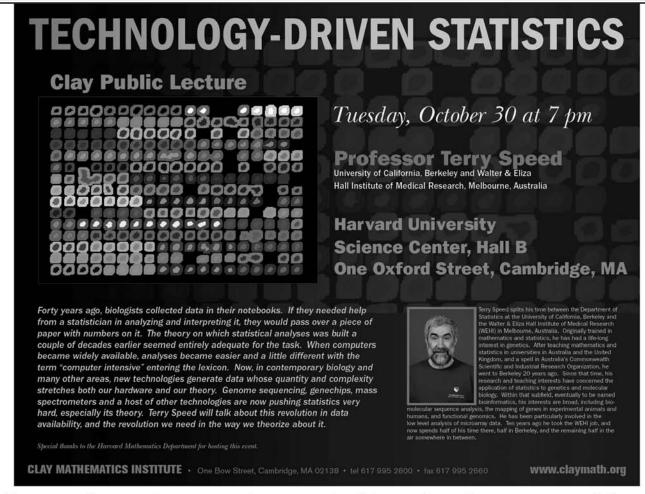
¶ Lavinia, played by Sara E. Ferry '11, pleads with her father, Roman general Titus Andronicus, played by Olivia Leitermann G, to allow her to marry the Emperor's brother, Bassianus.

 \P Queen Tamora, played by Holly B. Laird '07, Empress of Rome, takes advantage of her power over Emperor Saturninus, played by Yuri A. Podpaly G.

¶ Queen Tamora's sons, Chiron (Sabrina M. Neuman '09, left) and Demetrius (Akira Kobayashi '10, right), fight over who will rape Titus' daughter Lavinia.

 \P Chiron takes advantage of Titus' widowed daughter, Lavinia, to avenge their brother's death and their mother's grief.

Photography by Roseanne Chanchall



Learn about the way advances in biotechnology are pushing statistical theory to its limits, and why a new paradigm is needed.

— OPEN TO THE PUBLIC —

The Tech does many things to get a story.

It's flown its staff to Chicago to see March Madness in person.



It's flown its staff to Los Angeles for E3.

It's gotten its staff press passes to Red Sox games.





It's set up interviews for its staff with movie stars,

foreign dignitaries, and other famous people.

Got your interest?

join@tt.mit.edu

October 30, 2007 THE TECH Page 9

TOYOTA

















... and many more

Here's our resume, now show us yours!



- Fastest Growing Public Software Company
- More than 2,500 customers worldwide
- 7 billion daily transactions
- 1.6 petabytes of information, and growing

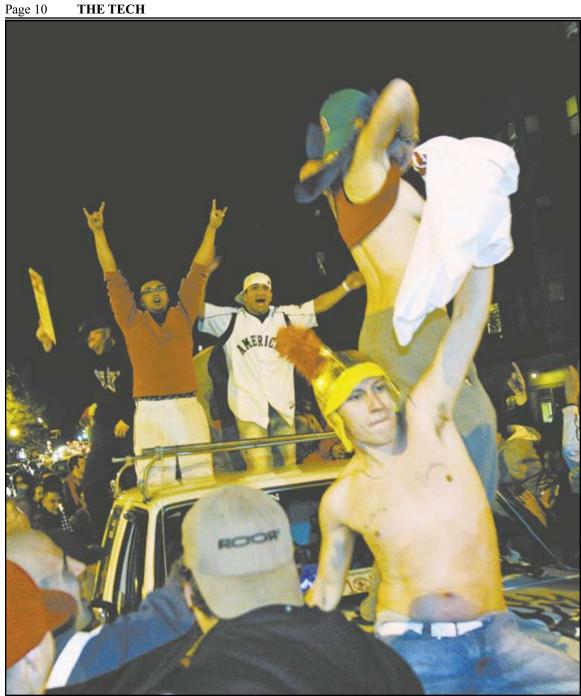
SOUND INTERESTING?

Come meet with members of Omniture's team at the upcoming on-campus information session:

DATE: November 15, 2007 **TIME:** 5:00pm - 7:00pm **PLACE:** Building 5, Room 134

On-campus interviews November 16, 2007. Please visit our ad on MonsterTRAK to submit your resume.

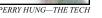










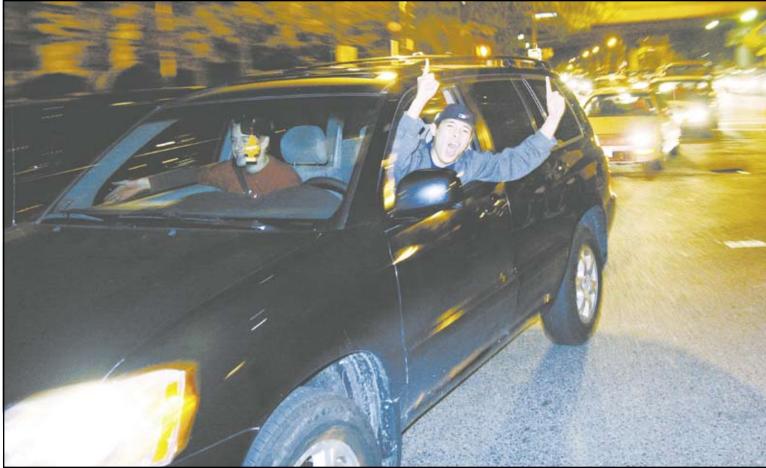






30, 2007 THE TECH Page 11





ANJANEY P. KOTTAPALI

LEX H. CHAN—THE TECH



On Sunday night the Red Sox defeated the Colorado Rockies 4-3, clinching the World Series Championship. This is the second time in four seasons the Sox have won the World Series. The city of Boston is throwing a parade to celebrate the victory today at noon. The parade will begin at Fenway park and make its way down Boylston St. to Boston Common and City Hall Plaza.

Center: A Boston police officer stands ready to disperse rioters with a baton.

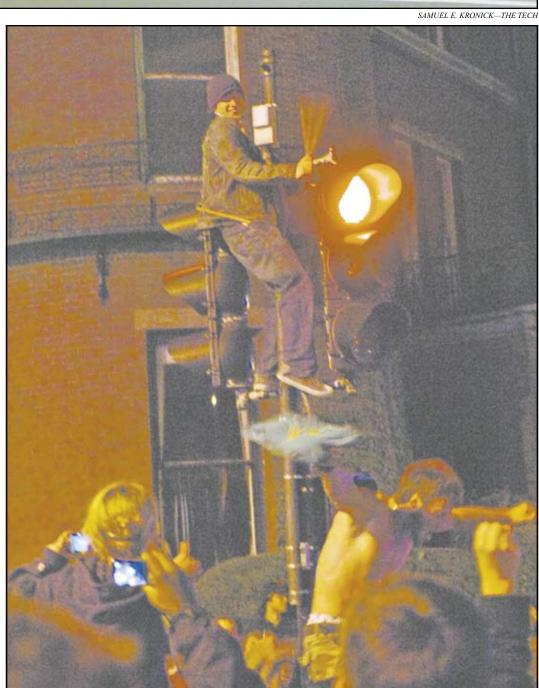
Clockwise from top left:

- \P Inebriated college students flood the streets of Boston after the final game.
- \P Revelers stop a passing cab and rock it until smoke pours from the tailpipe.

- ¶ An enthusiastic driver leans out the window of his car while stopped on Bay Street Road near Kenmore Square.
- \P A line of police officers in riot gear blocks off Boylston Street in an attempt to contain the jubilant crowd.
- \P An ad hoc street musician beats on a traffic light with a drumstick in Kenmore Square.
- ¶ Two young men crowd surf.
- ¶ An exuberant fan celebrates near Kenmore Square.
- \P A shirtless daredevil jumps off an awning in Kenmore Square to crowd surf the happy throng below.



MICHAEL MCGRAW-HERDEG—THE TECH



DANIEL P. BEAUBOEUF—THE TE

October 30, 2007 Page 12

New Conductor Leads MITSO Through Fall Concert





The MIT Symphony Orchestra performed this past Friday, Oct. 26 with new conductor Adam K. Boyles. The concert featured pieces from Kevin Puts, Johann Sebastian Bach, Edward Elgar, and Sergei

(Clockwise from above)

- \P Tomina Parvanova tunes her harp during the intermission.
- ¶ Boyles talks to the audience before Bach's Brandenburg Concerto
- No. 3, which was played by a subset of the Orchestra.

 ¶ Tiffany Ho '11 (left, from Wellesley) and Minhee Sung '10 play cello during Millennium Canons, by Kevin Puts.
- ¶ Danielle H. Yuen '11 (left), Tanya S. Goldhaber '10 (center), and Alex T. Vai '11 play violin for Rachmaninoff's *Symphonic Dances, Opus 45*. ¶ Ian C. Smith '07 plays french horn during The Wand of Youth: Suite

No. 1 by Sir Edward Elgar. Photography by Omari Stephens







October 30, 2007 THE TECH Page 13

Students Willing To Pay More For Dinners

\$2 Tuesdays, from Page 1

McComber in an e-mail.

Graduate Student Council President Leeland B. Ekstrom G said that based on comments around the table he was sitting at during the event, "grad students would like the opportunity to dine with other students ... on a semi-regular basis" as "there are very few communal dining options" for graduate students. Although MIT's four dining halls, located in four undergraduate dormitories (Baker, McCormick, Next, and Simmons) are open to all students, Ekstrom said that factors such as location makes it difficult for graduate students to use; there are no dining halls in graduate residences.

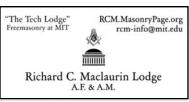
"We're planning to invite new faculty members to mingle with grad students" and considering catering or entertainment subject to budget constraints, McComber said. He added that the GSC would like to have the event every month and increase the number of attendees to 200.

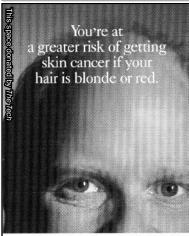
It would be easier to plan fewer larger events since getting enough volunteers for each date is the biggest hurdle, according to McComber. "We're always looking for more people to help out," he said.

Ekstrom said that students at the event told him that they "were willing to pay more than two dollars", so if needed the ticket price could be increased to three dollars. However, the cost would still be subsidized by the GSC.

Future ticket sales will be online, McComber said. He anticipates an increase in the number of ticket sales. He also added that the people who wanted tickets but didn't get them were put on a waiting list, and will get preference in ticket sales for the next TDT.

Ekstrom called the event "fairly successful." The next TDT is scheduled for December 11 in Lobdell, with 175 tickets for sale.

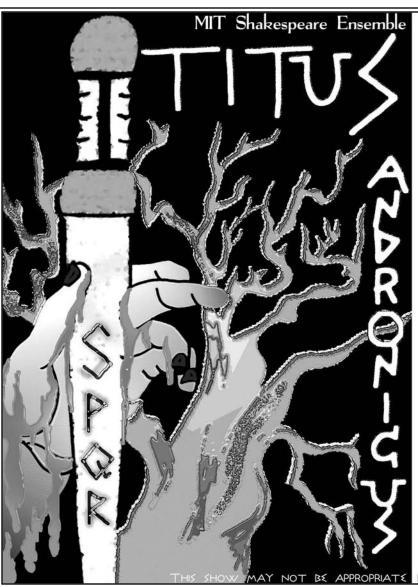




(No matter how much of it you have left.)

Fair skin. light eyes and a tendency to burn in the sun. also put you at a higher risk. So. examine your skin regularly. If you find anything unusual, see your dermatologist.





OGT 25-27, NOV 1-3

\$:00 PM

KRESGE LITTLE THEATER

\$\$ STUDENTS

\$\$ GENERAL

Directed by

Michael Haddad

TICKET RESERVATIONS

AND MORE INFORMATION:

web.mit.edu/ensemble/vvvvv

Become an EMT!



Applications for the MIT EMS IAP 2008 class are now available at our website: ems.mit.edu/apply.php

Applications are due by Midnight on November 1st.

Questions? Contact Jennifer Young (Class Officer): jyoung09@mit.edu

Page 14 THE TECH October 30, 2007

Candidates Discuss City's Relations With Local Colleges

Candidata	Top Three Priorities	MIT/Cambridge Relations	PILOT Agreement	Students want
Henrietta Davis	¶ Energy and environment ¶ Children's health ¶ Quality of life	There's always more to be done. In some cases, there is a clear need for partnership.	Always need to be looking at what universities can do to help community. I think MIT needs to continue to be an ongoing partner with us.	Transportation around town. Want to know that their city is doing the right thing in terms of human rights, energy, and the environment. Care that MIT continues to be a place where innovation happens.
Marjorie Decker	 ¶ Affordable housing ¶ Youth leadership/development ¶ Create civic space for dialogue and debate 	MIT tends to hire individuals who can relate to community. Always room for improvement – need to watch closely how MIT develops property/amount of land it owns.	It just doesn't make sense – needs to be a better formula. Perhaps MIT could help pay for part of \$100 million renovation of Cambridge Rindge and Latin School instead of PILOT payments for a couple years.	Aren't thinking about Cambridge. Concerned about their quality of life and what their next step should be.
Jonathan Janik	¶ Synchronized traffic signals to allow drivers to get from one side of Cambridge to the other more quickly. ¶ Promoting local businesses ¶ Late-night dining options	Relationship with MIT is fairly good. High school students should be allowed to intern and take classes at MIT and community should be able to use MIT's athletic fields when the teams are not in season.	When universities expand, they drive up the cost of renting. Universities should increase the amount of payments – "they do get off scot-free when it comes to taxes."	Low rent, being able to eat at three or four in the morning. Expanded biking and bike parking, safety, and more local and small businesses in MIT area.
Craig Kelley	¶ More citizens actively involved in what their city council is doing ¶ Better working relationship between the school committee and the city council ¶ Better way to grow – alternative transportation, less car-centric development	We need to clarify what we want universities to do. Perhaps could open university athletic facilities to the community or encourage volunteer work.	When the time comes to renegotiate, I'd like to see the payment amounts go up.	Want to feel safe going out and walking home.
David Maher	¶ Schools ¶ Safety ¶ Keeping Cambridge affordable	I was the councilor who brought forward the idea for the university subcommittee. We can do a better job of narrowing our requests to the universities. MIT students can help tutor science and math in the public schools. Also need to make sure campus changes are the best for both the university and the city.	The universities have vast wealth, so I think the residents expect more. I think we [councilors] wouldn't be doing our job if we didn't advocate for more.	Want to feel safe and enjoy an active social life in the city. Affordability is a concern, as is open space. Students with young families care about good public schools.
Kevin Moore	¶ Affordable housing ¶ Education and youth ¶ Elderly	All the universities need to have more outreach in the community. MIT, Harvard, and Lesley will be involved as tutors for my Cambridge Educational Youth League, which will also include a basketball league sponsored by Patrick Ewing. MIT also deserves a "whole lot of credit" for its Upward Bound program.	MIT pays more than Harvard, but both institutes should be paying a lot more to the city. Perhaps the universities could donate land or funds toward making more affordable housing.	It seems that MIT students keep to themselves, so I don't really know.
Gregg Moree †	 ¶ Youth apprenticeship programs. ¶ Residency Requirements for building and city jobs. ¶ More resources available to Senior citizens. 	There is a 15% poverty level in Cambridge. If we are truly working together that means MIT must address this problem as well. MIT is one of the largest land owners and employers in Cambridge, the University needs to take a greater interest in the community and the people where it resides. We need to attack the issue of poverty together, because the level it is at now is unacceptable.	I think more can be done. As I am sure most students know, Universities are acting more like corporations and less like schools. So why shouldn't they be taxed accordingly?	Students are an important part of Cambridge, and I think everyone needs fair representation on the council. But to be honest I am more focused on bringing jobs back to the working families of Cambridge. To giving kids who might not have a chance to go to college a chance at more than just a job but a career. If anything I think I may appeal to their social responsibility as part of our community.
Brian Murphy	¶ Improve affordable housing ¶ City zoning ¶ Support fun, independent businesses	Pretty good relationship, but always need to keep working on it. Should team up on projects that have mutual benefit for both groups.	Always going to be a charged topic, but the most important thing is that it provides the city with long-term protection in case MIT decides to take for-profit land off the tax rolls.	Late-night dining, more entertainment venues, safety, keep businesses that attract students.
Reeves	 Cambridge stays competitive with other bioscience centers Affordability for middle class - maintain Perfecting public education system 	MIT has the best government relations team. Understand many of the needs of the city, in terms of the school system and other intersections that are volunteer opportunities.	I don't think much of it. The universities are not non-profits. If there was greater taxes paid by the universities, the tax burden of residents could be reduced.	Generally concerned with quality of life issues. Probably want to know more about activities that they would enjoy on the fun and entertainment end. Also that city is prompting environmentally friendly decisions.
Kathy Podgers	¶ Bring Cambridge into compliance with the Americans with Disabilities Act ¶ Bring attention to the confusion of natural space with open space – stop development of Magazine Beach ¶ Work on gap between rich and poor and the problems with housing and food that result	Universities need to make sure campus housing is available, in order to prevent driving housing prices up. Also seems that MIT students are basically shut off from what's going on in the city.	Universities are basically corporations now — "what is really the difference between Amgen and MIT?" PILOT no longer makes sense since universities have such large endowments.	Parking issues, green issues, having venues open later in Cambridge. I feel students aren't being heard from, so I don't really know what they care about.
Sam Seidel	 ¶ Environment ¶ Early childhood education ¶ Changing economics and demographics in Cambridge 	My perception is that MIT does a better job of interacting with the city than Harvard does. The innovation at MIT leads to positive repercussions for Cambridge. MIT should help community face challenges like housing for students and other residents, transportation, and the environment.	"I don't understand why it's so low. I just don't understand it how did we come to that number it just seems incredibly low to me."	Want to go out with the friends late at night in Cambridge. Want recognition of their important role in making Cambridge unique. Want to hear that their political leaders are paying attention to their view of the future and want to hear some optimism.
Denise Simmons	¶ Safety ¶ Education ¶ Economic development/ jobs	Everyone can always do more. For example, I've contacted MIT about a parking lot they own at the intersection of School and Cherry. No one parks there, so I've suggested that it be the site of a collaborative project for affordable green housing.	goals and if you're meeting the needs of the community?	Safety, social life. The city council only gets to talk with university leadership, I would love to talk with students directly.
Edward J. Sullivan		High school students are looking for guidance, so colleges should get involved with this. Need to change community's outlook to a positive one. Should get MIT and Harvard presidents involved in the community.	This should be a debate between MIT attorneys and Cambridge attorneys. Would love to see more money – "but what would be here if colleges weren't here?"	
Tim Toomey ‡	¶ Quality of life ¶ Public safety ¶ Traffic/parking/transportation	Answer not available	"It's time for Harvard and other large non profits to pay their fair share of taxes to pay for the services they receive. I will continue to advocate for my Council Order implementing a 1% surcharge on a portion of the earnings on their endowments to fund programs."	Answer not available
Larry Ward	¶ Transportation ¶ Housing ¶ Community relations by e-mail	Sentiment of residents is that there are a lot of resources at MIT and Harvard. Need to promote what universities do so residents don't hold such an adversarial view.	"I think it's time to revisit thatsometimes what you do becomes a little outdatedpart of your endowment comes from your ability not to pay your taxes." Perhaps partner with Cambridge for some programs?	Want a safe, vibrant city that is accessible to them.

† Answered by e-mail ‡ Did not return phone calls and e-mail requests for an interview. Answers were taken from www.vote.rwinters.com

Elections for Cambridge City Council will be held next Tuesday, Nov. 3. The above table contains the candidates' answers to some questions particularly relevant to the MIT community. For more information, see story on page 1.

PILOT stands for Payment in Lieu of Taxes, an agreement in which Cambridge receives payments for non-taxable land being used by universities for educational purposes. In 2006, MIT's PILOT payment was \$1,541,000, according to the 2006 Cambridge Town Gown Annual Report Data.

Compiled by Marie Y. Thibault.

Depression is a serious threat to anyone that has a brain.

Depression is a suppression of brain activity that can strike anyone. It can make life unbearable, but it is also readily, medically treatable. And that's something you should always keep in mind.

Public Service message from SAIVE (Suicide Awareness) Voices of Education)

DEPRESSION
http://www.save.org

The Proportional Representation Voting Method

Voters rank candidates, giving their favorite candidate rank number one. Voters can rank as many or as few candidates as they wish. Once any candidate reaches a threshold of top choice votes, he/she is immediately elected. Any number one votes on ballots beyond the quota will be given to the number two vote on that ballot. Any candidate with less than 50 number one votes is then eliminated and those ballots are given to the number two vote. After this is done, the candidate with the lowest number of votes is eliminated and his/her votes go to the next preference. Candidates are elected by reaching quota after each elimination and redistribution.

SOURCE: CITY OF CAMBRIDGE ELECTION COMMISSION WEB SITE

October 30, 2007 THE TECH Page 15

"Those Damn Spammers" One Of Seven Competitors In UMOC

UMOC, from Page 1

one of UMOC's coordinators. Since then, UMOC has transformed into the Ugliest Manifestation on Campus (which a now thirteen-year-old carton of milk in Random Hall has won five times) as well as the Ultimate Manifestation of K0R3 before returning to its roots last year with the Ugliest huMan on Campus.

This year's theme came after grueling deliberation. "We searched through every word in the English language of the form "U....est," said Chronis. "There were many good choices - from untidiest to unhappiest to unwisest, but we settled on unholiest because it seemed the most thematic for MIT." Among those in the running for the illustrious title is "Those Damn Spammers." Competing with One Laptop Per Child as its chosen charity, Those Damn Spammers is running on the slogan "Helping developing countries learn everything there is to know about Vlad the Impaler."

Contestant Natalia N. Chernenko '08, president of the Pagan Students Association, has selected the Charles River Watershed Association as her charity. She cautioned that the children of her Lord and Master from the river "shall arise and engulf all that which lives, choking its very veins with alkali sand", but also added, "They must not be stopped. Do not vote for me."

Miriam A. "Mish" Madsen '09

your contraceptives"

Those Damn Spammers

Vlad the Impaler'

are both wrong." Jasmine R. Florentine '11

MIT Dead Kitten Society

"Cute things are tasty!"

Evelyn M. Mervine G

and Humanists

for Cthulhu 'Sinfully Tentacular"

Natalia N. Chernenko '08

Students Group

Do not vote for me."

'If you don't vote for me, I'll sabotage

All the participants of the most recent series of campus-wide flame-wars.

'Helping developing countries learn everything there is to know about

Adalberto "Nicolas" N. Garza '10

'Pro-Abortion. Because Life and Choice

Co-President of MIT Atheists, Agnostics,

'No Hell Below Us, Above Us Only Sky'

Christalee R. Bieber '07 "Talia Winters"

High Priestess of the Campus Crusade

Pagan/Witch — President of the Pagan

Voting for UMOC takes place this week in Lobby 10.

Condom Needler

Running on the slogan "No Hell Below Us, Above Us Only Sky", Evelvn M Mervine G wants to donate the funds raised in the event to the James Randi Educational Foundation, an organization that promotes science in schools and also brings scientists and magicians together. "I am running for UMOC," she stated, "because I want to bring attention to the MIT Atheists, Agnostics, and Humanists Club." Despite her Christian upbringing, Mervine decided she was an atheist her freshman year in college.

Jasmine R. Florentine '11 decided to make a UMOC run after being recruited as publicity chair of the newly-founded Dead Kittens Society (which itself was inspired by one of her drawings of a dead kitten). "The Dead Kitten Society," Florentine noted, "then helped me choose a charity and we decided for the irony we had to choose a charity helping animals." As a result, even though she is running on a slogan that declares "Cute Things Are Tasty!", Florentine is competing for the Massachusetts Society for the Prevention of Cruelty to Animals.

Also running for consideration as the Unholiest huMan on Campus is Adalberto Nicolas Garza '10. His charity of choice is Planned Parenthood, which works on family planning health issues related to reproduction. Going along with that theme, and satirizing the na-

One Laptop Per Child \$11.61

\$17.85

\$7.47

\$7.01

\$6.78

\$5.80

\$2.17

tionwide abortion debate, Garza has proclaimed "Pro-Abortion. Because Life and Choice are both wrong."

Christalee R. Bieber '07, a.k.a. "Talia Winters," High Priestess of MIT's Campus Crusade for Cthulhu, has made her campaign slogan "Sinfully Tentacular". Nevertheless, she hopes to bequeath the funds accumulated by the week-long event to the Transition House for Women, a group devoted to providing help to mothers with recently-incarcerated

Although this is her first attempt at UMOC, Miriam "Mish" A. Madsen '09, competing for Doctors Without Borders, said she was optimistic about her chances of winning. "I'm running for Unholiest huMan On Campus," Madsen said, "because it seemed like an excellent opportunity to don a beret and an eye patch while stabbing condoms with a knitting needle."

At the end of Monday, Madsen was leading the competition.





QuietComfort® 2 Acoustic Noise Cancelling® Headphones

Thank you to Students, Faculty, Staff and **Employees of M.I.T.**

Bose Corporation was founded and built by M.I.T. people. Our success in research and in business is a result, in no small part, of what M.I.T. has done for us. As one measure of our appreciation, we are extending special purchase privileges to all students and employees of M.I.T. for their personal use.

their favorite cadidate's jars. Rush is over.

MIT community members may vote by placing money in the jars of

UMOC Donations as of Monday, Oct. 29

Charity

Borders

Doctors Without

Planned Parenthood

Massachusetts Society

for the Prevention of

Cruelty to Animals

Transition House for

James Randi

Educational

Foundation

Charles River

Watershed

Association

SOURCE: IOLANTHE K. CHRONIS '08, UMOC COORDINATOR

Women

Free food isn't.

Join The Tech.

News • Arts • Sports • Photo • Prod • Biz • Techno join@the-tech.mit.edu W20-483, x3-1541





Please direct all inquiries to the "M.I.T. Purchase Program."

Bose Corporation 1-800-444-BOSE



©2004 Bose Corporation. Patent rights issued and/or pending. Delivery is subject to product availability.

THE TECH October 30, 2007 Page 16

Obama Promises To Make College More Affordable



Illinois Senator and presidential candidate Barack H. Obama speaks to a crowd of over 9,500 about his vision for America at a political rally on Boston Common on Oct. 23.



Thursday November 1, 7:00 PM



Israeli Film Night

Featuring

"Aviva Ahuvati"

Winner of the Best Screenplay award at the 2006 Jerusalem Film Festival



"Aviva Ahuvati" (Aviva, My Love) shows us the story of Aviva, a poor hotel chef, who finds herself on her way to fulfilling her lifelong dream of becoming a writer. The obstacles she must face and the effects of her journey on her quirky family are movingly depicted in this funny, award-winning film.

Hebrew with English Subtitles

Thursday Nov. 1 7:00 PM Room 6-120 Free pizza!

Obama, from Page 1

students, but plenty of older adults and some families attended as well.

Patrick alluded to the Red Sox as well in giving his endorsement to Obama: "Around here, we know how to come from behind and win. And that's what we're doing here tonight."

New York Senator and former First Lady Hillary Clinton, who has repeatedly led Obama in national polls, had also asked the governor for his endorsement, but Patrick settled on Obama on Oct. 17. Right afterwards, Patrick workers started planning the Oct. 23 rally.

Governor Patrick's introductory speech focused enumerated reasons why his constituents should support Obama. He equated Obama's position in the Democratic presidential race to his own position in the gubernatorial race last year. "See, this election is not just about who we want. It's about who we are," he said. "For once I want a campaign that's not about the candidate, but about us."

Following Patrick's endorsement speech, Obama promised reforms on issues ranging from health care and education to energy and Iraq, assuring the crowd that he would bring the spirit of change to Washington. "We need somebody to put an end to the game-playing and get serious about the challenges we face in America," Obama said.

Obama guaranteed that one of his first acts in office would be bringing troops home from Iraq. He pledged that if elected, America would focus

manitarianism instead of fear, perhaps alluding to President Theodore Roosevelt's policy of speaking softly, but carrying a big stick.

Of particular interest to the young crowd was Obama's promise to make "college affordable and accessible to every young person in America." He pledged to provide students with the "opportunity to serve" the nation in different ways, saying that higher education would be free for those training to be nurses, social workers, members of the Peace Corps, or teachers in inner-city schools.

Obama's campaign team encouraged crowd members to sign up to solicit votes in New Hampshire, offering transportation for all interested parties.

On the subject of health care, Obama elicited loud cheers by promising universal health insurance. In addition, he made a point of denouncing President George W. Bush's veto of the State Children's Health Insurance Program, a low-cost plan for families who cannot afford private health insurance. "I will make sure that every single one of you has decent, affordable health care" by the end of his first term, he said.

Obama showed off a funny bone too, glibly referring to Vice President Richard B. Cheney as a family member while discussing energy and Iraq. "It doesn't help when my cousin, Dick Cheney, is put in charge of energy policy," he said, prompting laughter. "Everybody's got a black sheep in the family," he added with a grin



Illinois Senator and presidential candidate Barack H. Obama shakes Governor Deval L. Patrick's hand after delivering a stump speech last Tuesday, Oct. 23.

P&Gbeauty

Join a Fireside Chat

with Bruce Brown Vice President, Global Hair Care R&D **Procter and Gamble**



We're looking for Innovative Engineers to be a part of the Magic Behind our Brands. Come learn how technology is an integral part of that work.

> Nov. 1, 2007 5:30 pm in Room 66-110 Dinner will be served

Courses 2, 3, 10, 20 Sponsored by AIChE and the Society of Biological Engineering

					S	ol	u'	tic	on	t	0				
\parallel	Crossword														
Ш	from page 7														
Ш	J	E	D		s	М	Α	L	ᆫ		В	Α	1	ᅵ	S
II	Е	L	0		Ρ	Α	D	υ	Α		Α	Т	s	Ε	Α
II	T	Н	U		Α	s	_	Α	Ν		Τ	Н	E	_	R
Ш	S	1	G	Н		Т	0	IJ	G	Н	В	R	Ε	Α	Κ
Ш			Η	Α	R	E	S			0	0	0			
II	G	Α	F	F	Ε	R		Α	R	М	Υ	В	R	Α	Т
Ш	R	E	Α	Τ	Α		F	L	0	E	S		0	ᅬ	Α
Ш	E	Τ	С	Ş		Р	R	1	Ų	s		N	U	\perp	Т
Ш	Ε	N	Ε		В	E	Α	S	Т		М	Α	G	Ν	Α
Ш	R	Α	\$	Ρ	ı	E	S	Т		z		I	Н	Ε	R
II				_	s	ᆫ			C	E	D	E	₽		
II	С	0	U	G	Η	s	Υ	R	U	P		s	R	Α	s
Il	Α	N	G	L	0		Е	1	G	Н	Т		Α	R	Т
Il	s	Α	L	E	Ρ		s	Τ	Α	Y	s		F	Ε	E
Il	Κ	N	Τ	Т	S		М	Ε	Т	R	0		Т	Α	Р
١'n			_		_	=	_	_	_	_					
Il					S	ol	u'	tic	on	t	0				
Il	Sudoku														
Il	from page 7														

Γ	from page 7									
⊢										
\vdash										
T										

October 30, 2007 THE TECH Page 17



The New England Philharmonic gave a performance in Kresge Auditorium last Saturday night. Peter B. Child, professor of Music and Theater Arts, is the Philharmonic's composer in residence. For more information see http://nephilharmonic.org/.

(left) Richard Pittman, music director of the New England Philharmonic, concentrates on bringing out the best out of his orchestra.

(below) Baritone David Kravitz joins the New England Philharmonic for Gustav Mahler's "Lieder eines fahrenden Gesellen."

Photography by Sherry Yan



got sperm?

SPERM DONORS NEEDED Jp to \$1100 a month

Healthy MEN in college or with a college degree wanted for our sperm donor program.

Minimal time commitment

Help people fulfill their dreams of starting a family.

Receive free health and genetic screenings.

APPLY ONLINE:

www.SPERMBANK.com

The School of Engineering announces the following opportunities open to eligible Sophomore and/or Junior students in the School of Engineering and the School of Science:

THE BARRY M. GOLDWATER SCHOLARSHIP

The Barry M. Goldwater Scholarship and Excellence in Education Program was established by Congress in 1986 to honor Senator Barry M. Goldwater, who served his country for 56 years as a soldier and statesman, including 30 years of service in the U.S. Senate. The purpose of the Foundation is to provide a continuing source of highly qualified scientists, mathematicians, and engineers by awarding scholarships to college students who intend to pursue careers in these fields.

The Goldwater Program provides scholarships of up to \$7500 per academic year. Sophomore scholarship recipients will be eligible for two years of scholarship support. Junior scholarship recipients will be eligible for one year of scholarship support.

Nominations must be from YOUR DEPARTMENT and are due at The School of Engineering, Dean's Office, 1-206 By: November 21, 2007

For further information: Contact your Undergraduate Officer, http://www.act.org/goldwater/ or http://web.mit.edu/engineering/goldwater.html or Maria Marangiello (x3-8012, mariam@mit.edu)

MIT Faculty Representative: Professor Cynthia Barnhart
Associate Dean for Academic Affairs,
School of Engineering

biodesign (a) Ifellowships S

ANNOUNCING: 2008-2009 Biodesign Innovation Fellowship

Explore the basics of biomedical technology innovation through an intensive, hands-on fellowship at Stanford University's Biodesign Program.

Join an interdisciplinary team of graduate engineers, business professionals, bioscientists and physicians for a hands-on, dedicated training experience in innovation.

Fellows learn the key stages of the biodesign process: identification and verification of clinical needs, brainstorming, invention, prototyping, patenting, early-stage testing regulatory and reimbursement, planning, financing and project implementation.

APPLICATION DEADLINE:

Clinicians September 30, 2007
 All other November 30, 2007

Apply online: http://biodesign.stanford.edu/fellowships/

For further information contact: biodesign@stanford.edu tel: 650 736 1160 fax: 650 724-8696





Page 18 THE TECH October 30, 2007

Scientist Turns Mice Cells Into Bone Instead of Fat

By Gina Kolata

Clinton T. Rubin knows full well that his recent results are surprising — that no one has been more taken aback than he. And he cautions that it is far too soon to leap to conclusions

about humans. But still, he says, what

say. Rubin, director of the Center for Biotechnology at the State University of New York at Stony Brook, is reporting that in mice, a simple treatment that does not involve drugs appears to be directing cells to turn into bone instead of fat.

All he does is put mice on a platform that buzzes at such a low frequency that some people cannot

even feel it. The mice stand there for 15 minutes a day, five days a week. Afterward, they have 27 percent less fat than mice that did not stand on the platform — and correspondingly more hone.

"I was the biggest skeptic in the world," Rubin said. "And I sit here and say, 'This can't possibly be happening' I feel like the credibility of

my scientific career is sitting on a razor's edge between 'Wow, this is really cool,' and 'These people are nuts."

The responses to his work bear out that feeling. While some scientists are enthusiastic, others are skeptical.

The mice may be less fat after standing on the platform, these researchers say, but they are not convinced of the explanation — that fat precursor cells are turning into bone.

The story of the finding, which was published online and will appear in the Nov. 6 issue of Proceedings of the National Academy of Sciences, began in 1981 when Rubin and his colleagues started asking why bone is lost in aging and inactivity.

"Bone is notorious for 'use it or lose it," Rubin said. "Astronauts lose 2 percent of their bone a month. People lose 2 percent a decade after age 35. Then you look at the other side of the equation. Professional tennis players have 35 percent more bone in their playing arm. What is it about mechanical signals that makes Roger Federer's arm so big?"

At first, he assumed that the exercise effect came from a forceful impact — the pounding on the leg bones as a runner's feet hit the ground or the blow to the bones in a tennis player's arm with every strike of the ball. But Rubin was trained as a biomechanical engineer, and that led him to consider other possibilities. Large signals can actually be counterproductive, he said, adding: "If I scream at you over the phone, you don't hear me better. If I shine a bright light in your eyes, you don't see better."

Over the years, he and his colleagues discovered that high-magnitude signals, like the ones created by the impact as foot hits pavement, were not the predominant signals affecting bone. Instead, bone responded to signals that were high in frequency but low in magnitude, more like a buzzing than a pounding.

That makes sense, he went on, because muscles quiver when they contract, and that quivering is the predominant signal to bones. It occurs when people stand still, for example, and their muscles contract to keep them upright. As people age, they lose many of those postural muscles, making them less able to balance, more apt to fall and, perhaps, prone to loss of bone.

"Bone is bombarded with little, teeny signals from muscle contractions," Rubin said.

He discovered that in mice, sheep and turkeys, at least, standing on a flat

vibrating plate led to bone growth. Small studies in humans — children with cerebral palsy who could not move much on their own and young women with low bone density — indicated that the vibrations might build bone in people, too.

Rubin and his colleagues got a patent and formed a company to make the vibrating plates. But they and others caution that it is not known if standing on them strengthens bones in humans. Even if it does, no one knows the right dose. It is possible that even if there is an effect, people might overdose and make their bones worse instead of better.

Some answers may come from the federal clinical trial, which will include 200 elderly people in assisted living. It is being directed by Dr. Douglas P. Kiel, an osteoporosis researcher and director of medical research at the Institute for Aging Research at Harvard. The animal work made him hopeful that the buzzing platforms would have an effect on human bones.

"This work is fascinating and very legitimate," Kiel said.

But then Rubin reported that the mice were also less fat, which led to the revised plans to look for changes in body fat as well.

Rubin says he decided to look at whether vibrations affect fat because he knows what happens with age: Bone marrow fills with fat. In osteoporosis, the bones do not merely thin; their texture becomes lacy, and inside the holes is fat. And a few years ago, scientists discovered a stem cell in bone marrow that can turn into either fat or bone, depending on what signal it receives.

No one knows why the fat is in bone marrow — maybe it provides energy for failing bone cells, suggests Dr. Clifford J. Rosen, director of the Maine Center for Osteoporosis Research and Education. And no one knows whether human fat cells ever leave the bone marrow and take up residence elsewhere.

"It is a very intriguing paper," said Claude Bouchard, an obesity researcher who is director of the Pennington Center for Biomedical Research at Louisiana State University. But he wondered whether the mice on the platform were simply burning more calories.

"It seems to me," Bouchard said, "that putting myself in the body of a mouse, if I was on a platform that was vibrating 90 times a minute, I would try to adhere to the surface and not be thrown off. I would probably tense my legs a little bit. That is energy expenditure."

Stress may be another factor, he added. Standing on the platform may have frightened the mice, and they might have become sick.

Dr. Rudolph L. Leibel, an obesity researcher who is co-director of the Naomi Berrie Diabetes Center at Columbia University, had similar questions

A platform that seems to be barely vibrating to a human could feel like an earthquake to a mouse, Leibel said, adding, "they could be scared to death," which could affect the study data.

He also questioned the idea that precursor cells from bone marrow could turn into fat cells in the rest of the body, calling it "a contested and, I would say, incorrect notion."

If the mice that stood on the platform became thinner and if they ate as much as mice that did not stand on the platform (as Rubin reported), they must be burning more calories, Leibel said.

Others are more hopeful.

"This is very, very cool," said Dr. John B. Buse, a diabetes researcher at the University of North Carolina who is president for science and medicine at the American Diabetes Association. If it turned out to hold for people too, "it would be great for diabetes," he added. He noted that people with Type 2 diabetes were likely not only to be overweight but also to have problems with their bones.

Still, Buse awaits more definitive

studies in humans.
"It is almost too good to be true,"



Thursday, November 1 8:00 pm Rm 26-100 FREE MOVIE

POSTERS

Pick up a screening pass at Lobby 16

Hosted by MIT Lecture Series Committee

DIWALI NITE 2007

FRIDAY NOVEMBER 2

DINNER 6:00 - 7:30 PM (ASHDOWN*)

PERFORMANCES 7:45 - 10:15 PM (KRESGE*)

AFTERPARTY 10:30 PM - 1 AM (ASHDOWN*)

CONTACT: SANGAM@MIT.EDU

TICKETS AVAILABLE AT WEB.MIT.EDU/SANGAM/WWW

\$5 MIT STUDENTS, \$8 OTHER STUDENTS, \$10 ALL OTHERS

DINNER \$10, SOLD SEPARATELY

*AShdown House, 335 Memorial Drive Cambridge MA 02139

*48 Massachusetts Avenue Cambridge MA 02139

MIT SANGAM PRESENTS

October 30, 2007 THE TECH Page 19

Smashing Pumpkins Spotted on Campus

The time-honored Halloween tradition of mutilating pumpkins saw its logical conclusion this Saturday evening as numerous squash fruit were chucked from the roof of the Green Building for the annual Pumpkin Drop. The Drop is sponsored by First West of East Campus and Weekends@MIT.

(clockwise from right)

Asilata A. Bapat '10, Sarang N. Kulkarni '10, Isaac M. Asher '10, and Eric P. Brown '08 (front to back) lob pumpkins off the roof.

Spectators gather at the base of the Green Building to examine what happens when speeding pumpkins hit the ground.

Pumpkins explode as they hit the ground at the end of their 21story fall.

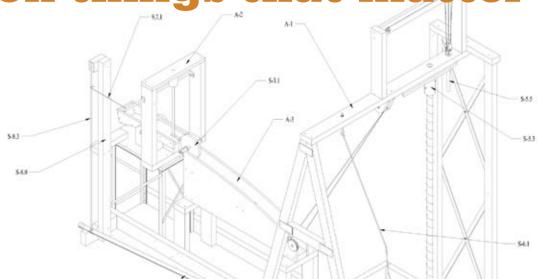






Working on things that matter





Course 1 | Freshman Open House

Noon - 4 p.m. Friday, November 2, 2007 **Bush Room 10-105**

Course 1 | cee.mit.edu



Civil & Environmental Engineering

Find out about Civil and Environmental Engineering

- CO₂ Sequestration
- Engineering Design Lab
- Environmental Fieldwork in Hawaii (TREX)
- Materials Design
- Nano to Macro Structures and Materials
- Ocean Microbes
- Traffic Simulations
- Wetlands
- ...and more



Page 20 THE TECH October 30, 2007

SPORTS

UPCOMING HOME EVENTS

Tuesday, Oct. 30, 2007

Women's Volleyball vs. Mount Holyoke

7 p.m., Rockwell Cage

Thursday, Nov. 1, 2007

Men's Water Polo vs. Tufts/Boston College

7 p.m., Zesiger Center



Elizabeth A. Hass '10 and Brooks L. Reed '09 compete for the Erwin Schell Sailing Trophy on Sunday. The team placed first in its division.

Fencing Hosts Olympic Medalist

Almost 50 alumni competed in foil, epée and sabre at last Saturday's alumni fencing meet. Olympic Gold Medalist and former MIT student Johan G. Harmenberg X'81 gave a presentation after competing in the

(right) Javier J. Ordonez '10 poised with epée in hand.

(below) Maximilian L. Brand '11 defeats his alumnus competitor in

Photography by Andrea Robles







Royal Bengal

Boston's only authentic Bengali Cuisine restaurant

(617) 491-1988

313 Mass. Ave., Cambridge Open Daily Except Monday T: Red Line, Bus #1 – Central Square 11:30 am - 11:30 pm Lunch Buffet \$7.95 Unique Bengali fish dishes include Paabda maachher jhol, Rui maachher **Reasonably Priced Dinners**

Take-out, platters, and catering available. Delivery with minimum order. 10% Discount on \$15 (or more) order with MIT ID. http://www.royalbengalrestaurant.com

kalia, Mochar ghanto, Shorshe Ilish

Men's Soccer Defeats WPI; Postseason Starts Wednesday

The men's soccer team defeated Worcester Polytechnic Institute last Saturday 1-0.

(left) Jason Zhu '11 executes a corner kick.

(below) Joshua J. Campoverde '08 slides to keep the ball from Worchester Polytechnic Institute's Evan Demers-Peel during the final minutes of the Saturday's match.

Photography by Aaron Sampson

